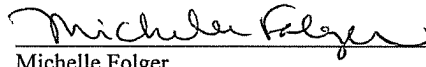


CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence (along with any paper referred to as being attached or enclosed) is being submitted *via* the USPTO EFS Filing System on the date shown below to Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date: June 14, 2011  
Michelle Folger**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

Inventor(s): Maruoka

Examiner: Brenda Libby Coleman

Serial No: 10/587,467

Art Unit: 1624

Issue Date: April 19, 2011

Patent No: 7,928,224

Title: OPTICALLY ACTIVE QUATERNARY AMMONIUM SALT HAVING AXIAL  
ASYMMETRY AND PROCESS FOR PRODUCING  $\alpha$ -AMINO ACID AND  
DERIVATIVE THEREOF WITH THE SAME

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**REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT**

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Dear Sir:

It is noted that errors appear in this patent of a clerical nature or character as more fully described below and it is believed such errors occurred in good faith and correction thereof does not involve such changes in the patent as would constitute new matter or would require reexamination. Accordingly, a Certificate of Correction is respectfully requested.

Attached hereto, are three forms PTO/SB/44 with at least one copy copy being suitable for printing.

The errors occur in the patent in columns 40-41, 97, 152, 173, 177, 181 – these errors and the correction thereof is detailed in the attached three forms PTO/SB/44.

The errors are believed to have been made by the Patent Office.

In the event any fees are due in connection with this paper, authorization is granted to charge such fees to Deposit Account No. 50-1063.

Please send the Certificate to:

Name: Gregory Turocy  
Address: TUROCY & WATSON, LLP  
57<sup>th</sup> Floor, Key Tower  
127 Public Square  
Cleveland, Ohio 44114

Respectfully submitted,  
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/Greg Turocy/  
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 3

PATENT NO. : 7,928,224  
APPLICATION NO.: 10/587,467  
ISSUE DATE : April 19, 2011  
INVENTOR(S) : Keiji Maruoka

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 40, Delete Lines 63-67 "and n is an integer from 1 to 12);  
(xii)  $-(CH_2)_n-S-R^{12}$  (where  $R^{12}$  is a group selected from the group consisting of:  
(1) a hydrogen atom;  
(2) a  $C_1$  to  $C_4$  alkyl group that may be branched;"

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UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

Page 2 of 3

PATENT NO. : 7,928,224  
APPLICATION NO.: 10/587,467  
ISSUE DATE : April 19, 2011  
INVENTOR(S) : Keiji Maruoka

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 41, Delete Lines 1-46 "(3) an aryl group, wherein the aryl group may be substituted with at least one group selected from the group consisting of:

a C<sub>1</sub> to C<sub>4</sub> alkyl group that may be branched,  
a C<sub>1</sub> to C<sub>5</sub> alkoxy group that may be branched,  
an aryl group that may be substituted with a C<sub>1</sub> to C<sub>4</sub> alkyl group that may be branched, a cyano group, -NR<sup>20</sup>R<sup>21</sup> (where R<sup>20</sup> and R<sup>21</sup> are each independently a hydrogen atom or a C<sub>1</sub> to C<sub>4</sub> alkyl group), a nitro group, a carbamoyl group, an N-(C<sub>1</sub> to C<sub>4</sub> alkyl)carbamoyl group, an N,N-di(C<sub>1</sub> to C<sub>4</sub> alkyl)carbamoyl group, or -NHCOR<sup>9</sup> (where R<sup>9</sup> is a C<sub>1</sub> to C<sub>4</sub> alkyl group that may be branched),  
a cyano group,  
-NR<sup>20</sup>R<sup>21</sup> (where R<sup>20</sup> and R<sup>21</sup> are each independently a hydrogen atom or a C<sub>1</sub> to C<sub>4</sub> alkyl group),  
a nitro group,  
a carbamoyl group,  
an N-(C<sub>1</sub> to C<sub>4</sub> alkyl)carbamoyl group,  
an N,N-di(C<sub>1</sub> to C<sub>4</sub> alkyl)carbamoyl group,  
-NHCOR<sup>9</sup> (where R<sup>9</sup> is a C<sub>1</sub> to C<sub>4</sub> alkyl group that may be branched), and  
a halogen atom; and

(4) a heteroaryl group, wherein the heteroaryl group may be substituted with at least one group selected from the group consisting of:

a C<sub>1</sub> to C<sub>4</sub> alkyl group that may be branched,  
a C<sub>1</sub> to C<sub>5</sub> alkoxy group that may be branched,  
an aryl group that may be substituted with a C<sub>1</sub> to C<sub>4</sub> alkyl group that may be branched, a cyano group, -NR<sup>20</sup>R<sup>21</sup> (where R<sup>20</sup> and R<sup>21</sup> are each independently a hydrogen atom or a C<sub>1</sub> to C<sub>4</sub> alkyl group), a nitro group, a carbamoyl group, an N-(C<sub>1</sub> to C<sub>4</sub> alkyl)carbamoyl group, an N,N-di(C<sub>1</sub> to C<sub>4</sub> alkyl)carbamoyl group, or -NHCOR<sup>9</sup> (where R<sup>9</sup> is a C<sub>1</sub> to C<sub>4</sub> alkyl group that may be branched),  
a cyano group,  
-NR<sup>20</sup>R<sup>21</sup> (where R<sup>20</sup> and R<sup>21</sup> are each independently a hydrogen atom or a C<sub>1</sub> to C<sub>4</sub> alkyl group),  
a nitro group,  
a carbamoyl group,  
an N-(C<sub>1</sub> to C<sub>4</sub> alkyl)carbamoyl group,  
an N,N-di(C<sub>1</sub> to C<sub>4</sub> alkyl)carbamoyl group,  
-NHCOR<sup>9</sup> (where R<sup>9</sup> is a C<sub>1</sub> to C<sub>4</sub> alkyl group that may be branched), and  
a halogen atom;"

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 3 of 3

PATENT NO. : 7,928,224  
APPLICATION NO.: 10/587,467  
ISSUE DATE : April 19, 2011  
INVENTOR(S) : Keiji Maruoka

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 97, Line 49, Delete "Pd(OAc)<sub>2</sub>" and replace with "Pd(PAc)<sub>2</sub>"

Column 152, Line 14, Delete "17%ee" and replace with "-17%ee"

Column 173, Line 42, Delete "K" so Line 42 reads "-NR<sup>20</sup>R<sup>21</sup> (where R<sup>20</sup> and R<sup>21</sup> are each independently a"

Column 173, Line 51, Delete "000NR<sup>10</sup>re<sup>rsil</sup>" (where R<sup>10</sup>" and replace with "OCONR<sup>10</sup>R<sup>11</sup> (where R<sup>10</sup>"

Column 177, Line 59, Delete "K" so Line 59 reads "-NR<sup>20</sup>R<sup>21</sup> (where R<sup>20</sup> and R<sup>21</sup> are each indepen-"

Column 181, Line 29, Delete "R<sup>1</sup>" so Line 29 reads "and x is an integer from 1 to 12); or R<sup>7</sup> and R<sup>8</sup> are taken"

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